

NOTES ON CHINESE SPECIES OF *ASSIMINEA*By TENG-CHIEN YEN<sup>1</sup>

The history of *Assiminea*<sup>2</sup> is comparatively little complicated. The genus was proposed by Leach as early as "1819" in a manuscript, not being published till 1828 by Fleming. In 1821, Gray proposed *Nerita Syncera Hepatica* apparently for the same group of shells. However, in 1835 (Phil. Trans. Roy. Soc. London, p. 303), he recognized clearly: "The shell in question and its animal were described and figured by Dr. Leach, in his hitherto unpublished work on *British Mollusca*, under the name of *Assiminea Grayana*; and as this name has been referred to by Mr. Jeffries and other conchologists, it may be regarded as established, and that of *Syncera hepatica*, proposed by myself in the Medical Repository, vol. x, p. 239, will take the rank of a synonym."

Except that in his Manual of Mollusca Woodward adopted *Syncera hepatica* Gray for *Assiminea grayana* Fleming, *Assiminea* seems to have been accepted by most of the malacologists working in the century following. A few useful lists of species of this genus successively appeared in the literature, notably that given by Martens in 1866 (Ann. Mag. Nat. Hist. Lond. III, 17, pp. 202-207); Pease in 1869 (Jour. Conchyl., pp. 161-167); and Boettger in 1887 (Jahrb. d. malak. Ges., 14, pp. 147-234). In these lists, as in other early literature, some heterogeneous elements were included, but the last-mentioned work is by far the most comprehensive and useful as a basis for further studies of this genus.

So far as the Chinese species are concerned, two forms were involved in confusion, namely *Hydrocena chinensis* Pfeiffer and *Laguncula pulchella* Benson. During my last visit to Europe I was able to examine the type-lots of both species in the British Museum (Natural History), and found *Hydrocena chinensis* Pfeiffer is only the young form of a certain Borneo species of *Schistoloma* Kobelt, which has been so far not recorded from China. *Laguncula pulchella* Benson is a doubtful group of

<sup>1</sup> With the grant-in-aid from American Philosophical Society in Philadelphia and heartfelt thanks to Dr. H. A. Pilsbry for his encouragement.

<sup>2</sup> *Syncera* Gray 1821 of some authors.

Naticidae. I have dealt elsewhere with both cases in fuller detail as well as with illustrations, in a paper left in London for publication, and they are certainly not species of *Assiminea*, nor connected with Assimineidae nor Viviparidae.

Among other Chinese species of *Assiminea*, there are no fewer than 20 forms on record with but a few of them whose specific standing needs further consideration. However, these species seem to agree well with *Assiminea* Fleming with *Assiminea grayana* as its genotype, and most, if not all, of these Chinese species are comprised in one of my recent works on Chinese gastropods.<sup>3</sup>

In a recent issue of NAUTILUS (vol. 53 (2), p. 68), Dr. Morrison attempts to show that some of Chinese species, hitherto being accepted as *Assiminea*, belong to the Indian genus *Ekadonta* Rao, namely "*colombiensis*" (probably means *colombeliana*) and *scalaris*, both being described by Heude from Yangtze valley. He seems to be almost certain that the former is an *Ekadonta*, while the latter "may belong to this group also."

*Assiminea colombeliana* Heude 1885, a species named in honor of its collector, R. P. Colombel, is comparatively a narrower shell and was collected from a brackish habitat at the mouth of the Yangtze river. However, it differs but slightly from *Assiminea scalaris* Heude 1882, a very common species of amphibious habitat existing in the interior farther from the coast. These two forms are closely related, if not identical, and the latter opinion was held by Boettger (*l.c.*, p. 170).

As compared with Rao's detailed descriptions and figures of *Ekadonta shanensis*, I found that his species resembles in some shell and radula features *Assiminea scalaris* Heude, material of which is available in my hand at present. But, nevertheless, I fail to trace out much difference in kind of *scalaris* from *grayana*. It is true that, for instance, the marginals of *scalaris* carry more numerous and minuter cusps than that in the case of *grayana*, but could that difference be specific rather than generic?

On the other hand, if all other differences be proved that

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<sup>3</sup> Yen, Teng-Chien, Die chinesischen Land- und Süßwasser-Gastropoden des Natur-Museum Senckenberg, Abhandl. senck. naturf. Ges. Frankfurt a. M., 444, S. 1-233, 16 Taf., 1939.

*scalaris*, as well as *colombeliana*, should rightfully be separated generically or subgenerically from *Assimineca*, Heude in 1882 already proposed *Solenomphala* for *scalaris* as a subgenus of *Assimineca*. Moreover, if both these Chinese species, *scalaris* and *colombeliana*, be further confirmed in detail comparison that they are congeneric with *Ekadonta shanensis* Rao, still Heude's name *Solenomphala* will have precedence over *Ekadonta* Rao.

### LYMNAEA CONTRACTA CURRIER

BY CALVIN GOODRICH

The mollusk was described by Currier in 1868 from shells taken in Higgins Lake, Roscommon County, Michigan. From time to time for seventy years thereafter, additional specimens were collected, but always from the same body of water. It has never been found in Houghton Lake, into which Higgins Lake discharges, or in Marl Lake, a small feeder of Higgins Lake and probably once an arm of it.

The most striking characteristic of *L. contracta* is the pinched, flattened, strongly shouldered body whorl. The plaited columella, for one character, justified Mr. Frank Collins Baker in connecting the shell closely with *L. emarginata*. In one form or another, this species is in all the lakes of the Higgins group and in at least one stream of it. *L. contracta* has not been found living, and from this Dr. Bryant Walker suspected that the shell is an occupant of deep water "that only comes to shore occasionally."<sup>1</sup> Still earlier, he ventured the opinion that it might be "semi-fossil" or "extinct."<sup>2</sup>

Among mollusks taken by Dr. Laurence C. Stuart in Barney Lake of Beaver Island, Lake Michigan, in 1939 were two examples of *contracta*. Though without soft parts, the shells were quite plainly of animals recently alive. I myself visited the lake in July, 1940. I came upon numbers of *contracta* which currents had brought together in shallow depressions of the lake bed, but yet did not see a living specimen. It is probably relatively rare. The fact of this rarity, both in Higgins and Barney lakes,

<sup>1</sup> F. C. Baker, *The Lymnaeidae of North and Middle America*, 1911, p. 434.

<sup>2</sup> Bryant Walker, *NAUTILUS*, 6, 1892, p. 33.